A SAF

Quality Control

Work Ord July-09-13 11		)4245		*104	245*				Page 1	<u>l</u>
Item ID: Revision ID: Item Name:	D4093-1 Bracket	Q <sub>0</sub>		Accept	*N900	<b>04010</b>	<b>n*</b> s	Setup Start Stop	*NS1* *NS2*	
Start Date: Required Date Reference:	7/09/13 e: 7/09/13	Start Qty: 4.00 Req'd Qty: 4.00	*4* *4*		Cust Item II Customer:	<b>D:</b>			1 2 7 7 7	
Approvals:		an: MLJ	-			nte:	-	Run Start Stop	*NR1* *NR2*	
Sequence ID/ Work Center	ID	Operation Description		Set Up/ Run Hours	Tool ID	Tool # Plan Code	Accept Qty	•	Reject Insp. Number Stamp	
Draw Nbr		vision Nbr		٠٠٠		•				
D4093	D,						į			
*110 *110* Waterjet FLOW CNC Wate	-	<b>Memo</b> CUT AS D DWG REV	: <u> </u>	0.00			8	· 	Jm13	~10~a^
0061 3/1	4 X G.	PROG RE								
			S WILL BE MADE ON M	iilling*** V		,				
120 *120*		QC2- Inspect parts off	nachine FAI/FAIB	0.00			ළි	۵	Jm 13	5-10-02
QC		Memo		0.00					<u> </u>	, 10·05

	Date:	13/	O    -  -	DISPOSITION  Rework  Scrap  Use-as-is  Suspected Unapproved		Thern	AGAINST I  Skid-tube Crosstube Small Fab noforming Finishing Large Fab Composite	Pro Rec/Sto	/PROCESS  Water Jet d. Eng. Coor.	Engineering Quality Other
Date	Stan	Otv	Descr	•	1			_	Varification	QC Inspector
	# BD	43	at. Abo Morke the c	ent inspection that  Part has 6.080" hold  6.900" should be @ 1.58"  Oby x 2 Parts have  if from top of Drives touting  Plant face (at paged 540)  or Dimple.	92	DAS 16 9-89 	Scrap + Dostry' OH × 3 No Reph.		DAS 27 9-89	DAS 16 9-89 D>Z042 D>Z042
Gear				General	FA	ULI CAI	EGURT	·		
Bending Centre No Cracks Crimp/Kin Cuffs Crushing Heat Trea Inspection Marks/Ch Turning Se	k/Ripple t n Strip in atter equence	/Wave Tube		Bend BOM/Route Broken/Damage/Defect Burrs Contamination Countersink Cut Too Short Drawing Drill Holes Finish		Grain Hardwa Inspecti Instruct Misalig Mislabe Misread Off-set	re on Incomplete/Unqualified ions Incomplete/Unclear ned/off center led I	Over/Under Part Incorre Part Lost/M Part Moved Positioned V	tolerance ct sissing Vrong	Pressure/Forced Set-up Temperature/Cure Weld Wrong Stock Pulled Other
	Date  Date	Date:  104245  13-312  Date Step  Date Step  Date Step  Gear  Bending Centre Not Concer Cracks Crimp/Kink/Ripple Cuffs Crushing Heat Treat Inspection Strip in Marks/Chatter Turning Sequence	Date: 13/  104245  13-3135  Date Step Qty  Date Step Qty  Sear  Bending Centre Not Concentric Cracks Crimp/Kink/Ripple/Wave Cuffs Crushing Heat Treat Inspection Strip in Tube Marks/Chatter	Date Step Qty  Date Step Qty  Foans  Abo  Mark  Re c  Caux  RC  Cracks  Crimp/Kink/Ripple/Wave  Cuffs  Crushing  Heat Treat  Inspection Strip in Tube  Marks/Chatter  Turning Sequence	Date: 13/10/10    Disposition   Rework   Scrap   Use-as-is   Suspected Unapproved	Date: 3/0/10    Date: 3/0/10   Disposition   Rework   Scrap   Use-as-is   Suspected Unapproved   Suspected Unapproved   Date   Step   Qty   Description of work order update   Or non-conformance   Charles   Abo   Or non-conformance   Charles   Abo   Or non-conformance   Charles   Abo   Or non-conformance   Charles   Or non-conformance   Charles   Charles	Date: 13/10/10  Disposition  Rework Scrap Use-as-is Suspected Unapproved  Date Step Qty  Description of work order update or non-conformance  Fours at inspects the Date Step Qty  Description of work order update or non-conformance  Chief Eng  DAS 16 9-89  Abo Oly 2 Party have Opert Focus (AL Arayd SQP) CAN: a Dimple: 2C Operate Engage  FAULT CAT  General  Bending Centre Not Concentric Cracks Crimp/Kink/Ripple/Wave Cuffs Crushing Heat Treat Inspection Strip in Tube Marks/Chatter Turning Sequence  Disposition  Rework Scrap Use-as-is Suspected Unapproved  Initial Chief Eng DAS 16 9-89  AS 1	Date: 13/10/10/10/10/10/10/10/10/10/10/10/10/10/	Date:   3   10   10   10   10   10   10   10	Date: 13   D   Disposition   Disposition

<b>Work Orde</b> July-09-13 11:43		04245		*1	042	45*						Page 2
Revision ID: Item Name:	D4093-1 Bracket 7/09/13 7/09/13	Start Qty: 4.00 Req'd Qty: 4.00	*4* *4*	Accept	*	N900 * Cust Item II Customer:		100	)* s	etup Sta	rt *N.	S1* S2*
Reference: Approvals:		lan:	Date:	Tooling: SPC (Y/N)	:		te:		R	tun Sta Sto	" <b> </b> \	R1* R2*
Sequence ID/ Work Center ID  130  *130  *initial Conv.	)	Operation Description		Set Up/ Run Ho 0.00	urs į	Tool ID	Tool#	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Conventional Milling	g Machine		O C'SINK AS PER DWG	0.00		13/10/09	-/					Frevans
*132* QC Quality Control		Memo		0.00	7.*->	(3)(0)	/		6	2.		
135 *135*		QC8- Inspect parts - seco	ond check	0.00	AS 27 -89				3			
QC Ouglity Control		Memo		0.00 13	8.01							

Quality Control

DOA:

Date: 13/16/13

## WORK ORDER NON-CONFORMANCE / UPDATE

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ارك	$\sim$	П 🖋	. U •
	- n n	C D 4	^ -

QA Closed:		Date:							- W	ork Order up	date only	
Work Order	: 104	245			DISPOSITION				AGAINST DI	EPARTMENT	PROCESS	
Part No	o. 040	193-1			Rework Scrap Use-as-is Suspected Unapproved			Skid-tube Machining noforming Large Fab	Crosstube Small Fab Finishing Composite	⊣	Water Jet J. Eng. Coor. e/Packaging Supplier	Engineering Quality Other
Root				Desci	ription of work order update	ı	nitial	. Acti	on	Sign &		
Cause	Date	Step	Qty		or non-conformance	Ch	ief Eng	1 Descri	ption	Date	Verification	QC Inspector
Design Doc/Data Equip/Tooling Handling/Pre Material	[3]10]04	DQ	ą.	Rc.	operate train/FRED.	2	DAS 16	SCRAP + Dost NO Replac	۲.	13/10/04		DAS
Operator Offset/Setup Process Supplier Training Transport Unapproved	13/10/04	130	\	Pos wro 1.13	itioned .000" hole ing, supposed to be " and hole is at		9-89 027-042 3 luloj	SCRAP + ] No Repu.	Desty'	13/10/04	·	16 9-89 0-7-042 13/10/07
	· · · · · · · · · · · · · · · · · · ·	<del></del>	<del></del>			FAL	JLT CAT	EGORY				
Landin	g Gear Bending Centre No Cracks Crimp/Kir Cuffs Crushing Heat Trea Inspection Marks/Ch Turning S	nk/Ripple It n Strip in latter	/Wave		General Bend BOM/Route Broken/Damage/Defect Burrs Contamination Countersink Cut Too Short Drawing Drill Holes Finish		Grain Hardwa Inspect Instruct Misalig Mislabe Misread Off-set	ion Incomplete/Unitions Incomplete/United/Off center led		Outside Dime Over/Under Part Incorred Part Lost/Mi Part Moved Positioned W Power Loss/S	tolerance t ssing /rong	Pressure/Forced Set-up Temperature/Cure Weld Wrong Stock Pulled Other
	Wave/Tw	-	e		Fit/Function			Sequence				

<b>Work Ord</b> <i>July-09-13 11:4</i>		4245		*10	424	5*						Page 3
Item ID: Revision ID: Item Name: Start Date: Required Date: Reference:	D4093-1 Bracket 7/09/13 7/09/13	Start Qty: 4.00 Req'd Qty: 4.00	*4* *4*	Accept	•	Ust Item I	•	100	)* s	Setup Start Stop	*N:	S1* S2*
Approvals:		an:	Date:	Tooling: SPC (Y/N):	<u> </u>		nte:		R	Run Start Stop	"	R1* R2*
Sequence ID/ Work Center II  140  *140* HandFinish Hand Finishing	D	Operation Description Chemical Conversion Co	oat per QSI005 4.1	Set Up/ Run Hours 0.00		Tool ID	Tool#	Plan Code	Accept Qty		Reject Number B- 18	Insp. Stamp
160 *160* QC Quality Control		QC7-Inspect Chemical C	Conversion Coat	0.00 PA 27 0.00 9.8	7 39	,			3			
170 *170* Packaging Packaging		Identify as per dwg & Sto	ock Location 727	0.00		,			3x	. <u> </u>	/3	DAS 26 9-89

DQA:			Date:						_					•	TQAG
QA Closed:			Date:			WORK ORDER NON	-C(	ONFOI	RMANCE / UI	PDATE	Wo	ork Order up	odate only	$\Box$	AEROSPACE
Work Ord	er.					DISPOSITION		:		AGAINST	DEI	PARTMENT/	/PROCESS		
Part I	•					Rework Scrap Use-as-is			Skid-tube Machining noforming	Crosstube Small Fab Finishing			Water Jet d. Eng. Coor. e/Packaging		Engineering Quality Other
NCR I	No.				<del></del>	Suspected Unapproved	_	mem	Large Fab	Composite	-	. Nec/Stor	Supplier		Other
Root					Desc	ription of work order update		Initial	Act	ion		Sign &		$\Box$	
Cause		Date	Step	Qty		or non-conformance	Ch	ief Eng	Descr	ription		Date	Verification	n	QC Inspector
Design	Ш													- 1	
Doc/Data	Ш														
Equip/Tooling	Ш														
Handling/Pre	Ш														
Material															
Operator															
Offset/Setup															
Process	Щ														
Supplier															
Training	Щ														
Transport	Ш					<u>;</u>	}							l	
Unapproved			<u> </u>	·				·							
							FA	ULT CAT	TEGORY						
Landi	٦					General	_	,		ı		ı	,	_	
	1	Bending				Bend	<u> </u>	1	rogram		Н	Outside Dime	ł	_	Pressure/Forced
yr 4.		Centre No	ot Concen	itric	-	BOM/Route	$\vdash$	Grain			Ш	Over/Under	tolerance	-	Set-up
1		Cracks				Broken/Damage/Defect	L	Hardwa			$\vdash$	Part Incorrec		$\square$	Temperature/Cure
٠.	-	Crimp/Kir	ık/Ripple,	/Wave	_	Burrs	<u></u>	1	on Incomplete/Un	·	Ш	Part Lost/Mis	ssing		Weld
	-	Cuffs			<u> </u>	Contamination		1	ions Incomplete/U	Inclear	-	Part Moved			Wrong Stock Pulled
	—	Crushing				Countersink		-	ned/off center		${f -}$	Positioned W			
	-	Heat Trea				Cut Too Short	_	Mislabe				Power Loss/S	Surge	$\Box$	Other
		Inspection	· .	Tube		Drawing		Misread	ľ						
	-	Marks/Ch				Drill Holes	_	Off-set					·		
	-	Turning S				Finish		1	Calibration						
	1 1	Wave/Tw	ist in Tub	e	- 1	Fit/Function	1	Out of S	equence						

Work Ord				*104	1245*				Page 4
Item ID: Revision ID: Item Name:	D4093-1 Bracket			Accept	*N90004010	<b>)</b> 0*	Setup St		'NS1* 'NS2*
Start Date: Required Date: Reference:	7/09/13 : 7/09/13	Start Qty: 4.00 Req'd Qty: 4.00	*4* *4*		Cust Item ID: Customer:				
Approvals:	Process QC:		Date:	Tooling: SPC (Y/N):	Date:			art 7	*NR1* *NR2*
Sequence ID/ Work Center I 180 *180* QC Quality Control	D A	Operation Description CC21- Final Inspection Memo	- Work Order Release	Set Up/ Run Hours 0.00	Tool ID Tool # Pla Coo	-	Reject Qty	_	ect Insp. nber Stamp  3/10/10 .

MP107

DQA:			Date:						_				**	A RT
QA Closed:			Date:			WORK ORDER NON	-C(	ONFO	RMANCE / U		ork Order up	ndate only - F	-	AEROSPACE
Q. C. O. O. C. C.			oute.			DISPOSITION								
Work Orde	er:					DISPOSITION				AGAINST DI	EPARTMENT,	PKOCE22		
			•			Rework			Skid-tube	Crosstube	]	Water Jet		Engineering
Part N	No				···	Scrap		1	Machining	Small Fab		d. Eng. Coor.		Quality
					-	Use-as-is		Thern	noforming	Finishing	Rec/Sto	re/Packaging		Other
NCR N	No					Suspected Unapproved			Large Fab	Composite		Supplier		
Root					Desc	ription of work order update		Initial	Ac	tion	Sign &			
Cause		Date	Step	Qty		or non-conformance	Ch	nief Eng	Desc	ription	Date	Verification		QC Inspector
Design														
Doc/Data	Ш													
Equip/Tooling														
Handling/Pre														
Material													İ	
Operator													- [	
Offset/Setup														
Process														
Supplier	Ш													
Training	Ц											i		
Transport	Ш													
Unapproved														
		<del></del>					FA	ULT CAT	EGORY					
Landi	ng Ge	ar				General		-			_	_		
	В	ending				Bend	_	Folio/P	rogram		Outside Dim	ensions	P	Pressure/Forced
	LL C	entre No	t Concen	itric		BOM/Route		Grain			Over/Under	tolerance	S	Set-up
·	L C <sub>1</sub>	racks				Broken/Damage/Defect		Hardwa	re		Part Incorred	ct		emperature/Cure
	L C	rimp/Kin	k/Ripple,	/Wave		Burrs	L	Inspecti	on Incomplete/U	nqualified	Part Lost/Mi	ssing	Jv	Veld
	∐Cı	uffs				Contamination		Instruct	ions Incomplete/I	Unclear	Part Moved		\v	Wrong Stock Pulled
	L C	rushing				Countersink		Misalig	ned/off center		Positioned V	/rong _		
	⊢Н	eat Trea	t			Cut Too Short		Mislabe	led		Power Loss/	Surge	c	Other
	In	spection	Strip in	Tube		Drawing		Misread	· ·					
	Шм	larks/Ch	atter			Drill Holes		Off-set						
	∐ Ti	urning Se	equence			Finish		Out of 0	Calibration					
	Ιlw	/ave/Twi	ist in Tub	e		Fit/Function		Out of 9	Sequence					

H:/FORMS/Quality Assurance\approved QA/NCRWO RevH

July-09-13 11:43:03 AM

Work Order ID:

104245

Parent Item:

D4093-1

Parent Item Name:

Bracket

**Start Date:** 7/09/13

Required Date: 7/09/13

Start Qty: 4.00

Required Qty: 4.00

Comments:

IPP REV:B AS PER REV C

Ipp Rev:A New Issue 10-05-31 JLM Verified By:DD 11.09.28 JLM VERIFIED BY:DD IPP REV:C 12.19 IPP REV:C 12.10.31 AS PER DWG REV.C DD VERF:JLM

	Qty on Hand	~ "	ty per Kit	t Total Qty	Qty Issue	Date ed Issued	Status I	
100	46.5100	46.5100		2:412T	1052_   FT.		Jm13-0	60
100	46.5100	46.5100			2:412  -	2:142:1052 H_FT	2-1121U52 H FT.	

<b>Location</b>	Loc Qty	Loc Code	
MAT005	46.51		- 0.613
120866	34.78		120866
121380	11.73		

DQA:			. Date:								•	•	
QA Closed:			Date:			WORK ORDER NON	-C(	ONFO	RMANCE / U		ork Order up	ndate only - [	AEROSPACE
								<u> </u>					,
Work Orde	er:					DISPOSITION		<u> </u>		AGAINST DE	PARTMENT	/PROCESS	
					_	Rework	]		Skid-tube	Crosstube	]	Water Jet	Engineering
Part N	No	***				Scrap			Machining	Small Fab	Pro	d. Eng. Coor.	Quality
						Use-as-is		Thern	noforming	Finishing	Rec/Sto	re/Packaging	Other
NCR N	No					Suspected Unapproved	_		Large Fab	Composite	_	Supplier	
Root	T	ě,	· ·	-	Desc	ription of work order update		Initial	Ac	tion	Sign &		<del>-</del>
Cause		Date	Step	Qty		or non-conformance	Cr	nief Eng	Desc	ription	Date	Verification	QC Inspector
Design							T						
Doc/Data							1						
Equip/Tooling										•			
Handling/Pre						`•							
Material	Ц												
Operator	Ш										:		,
Offset/Setup	Ш												
Process	Ш												
Supplier	Ш											[	
Training	Ш												
Transport	Ш												
Unapproved	Ш												
							FA	ULT CAT	regory				
Landi						General		7			7	_	_
	$\boldsymbol{\vdash}$	Bending				Bend	L	1	rogram		Outside Dim	. +	Pressure/Forced
	$\vdash$		ot Concer	ntric		BOM/Route	L_	Grain			Over/Under	tolerance	Set-up
	$\boldsymbol{\vdash}$	Cracks				Broken/Damage/Defect		Hardwa			Part Incorre		Temperature/Cure
	-	-	nk/Ripple,	/Wave		Burrs	<u> </u>	1 .	ion Incomplete/U	· ·	Part Lost/Mi	ssing	Weld
		Cuffs				Contamination	<u></u>	-	ions Incomplete/	Unclear	Part Moved		Wrong Stock Pulled
	-	Crushing				Countersink	_	-1	ned/off center	<u> </u>	Positioned V		
	$\vdash$	Heat Trea				Cut Too Short	_	Mislabe			Power Loss/	Surge	Other
		-	n Strip in	Tube		Drawing	<u></u>	Misread	i				
	_	Marks/Ch			_	Drill Holes		Off-set					
	—	Turning S	•			Finish		-	Calibration				
	LΙ	Mave/Tw	ist in Tuh	e	i	Fit/Function	1	LOut of 9	Seguence	-			•

H:/FORMS/Quality Assurance\approved QA/NCRWO RevH

DART AEROSPACE LTD	Work Order:	104245
Description: Bracket	Part Number:	D4093-1
Inspection Dwg: D4093 Rev: D		Page 1 of 1

## FIRST ARTICLE INSPECTION CHECKLIST

Drawing	Tolerance	Actual	Accept	Reject	Method of	Comments	
Dimension		Dimension			Inspection		
0.92	+/-0.030	0.922	_			Jamos	
3.85	+/-0.030	3.862			ν	24	
4.03	+/-0.030	4.03"			V		
5.03	+/-0.0330	5.016"	_		V		
0.36	+/-0.0360	0.360			V		
0.76	+/-0.030	0.76"	_		V		
4.82	+/-0.030	1.82°	-		V		
0.38	+/-0.030	6.369"	_		<b>V</b>	·	
4.20	+/-0.030	4.195"	<b>-</b>		V		
7.03	+/-0.030	7.025			V	·	
0.750	+/-0.010	GZEG	_		ν		
→ Ø0.080	+0.005/-0.000	~032	1		T.K -04	Vern	
d201 x	1001 200. +	.201	7		FK-04	Vern	
\$ .370 x 100°	+(- 010	375x100°	]		t s	ι, .	
						-	
	,						
			- 040				
			DAS 27				

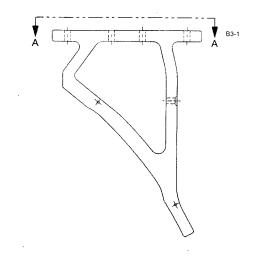
Measured by: Jm JFK Audited by: Preliminary Approval:

Date: 13-10-03

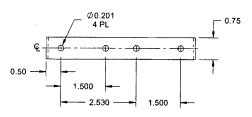
Date: 13 10 10

Date:

Rev	Date	Change	Revised by	Approved
Α	11.10.13	New Issue	KJ 1A	
В	13.05.08	Dimensions updated per Dwg Rev D	KJ OX	<b>M</b>
			7	



SHOPPING RETURN TO **ENGINEERING** UNCONTROLLED COPY SUBJECT TO AMENDMENT WITHOUT NOTICE WORK ORDER 13-07-12



SECTION VIEW A-A D6-1



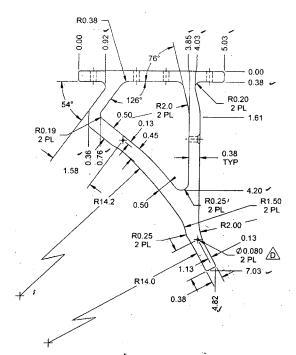
NOTES:
1) MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR
PER QQ-A-225/8 OR AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116)
OR QQ-A-200/8 OR AMS-QQ-A-200/8 (OR AMS 4117/4128/4115/4116)
OR ASTM B211 OR ASTM B221
OR 6061-T6/T62 ALUMINUM SHEET
PER QQ-A-250/11 OR AMS-QQ-A-250/11
OR AMS 4025 OR AMS 4027
OR ASTM B209
REF DART SPEC. M6061T6B/M6061T6S
2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
6) IDENTIFICATION: NONE
7) WEIGHT: 0.55 lbs

Α

D4093-1 BRACKET

	T				
D	ADD Ø0.080 HOLES (ZN B5-2, B5-4)			RF	12.09.18
С	REDRAWN D4093-1/-3 (ZN B4-1, B4-2); ADD MATERIAL NOTES (ZN A8-1, A8-3, A8-5)		RF	RF 11.07.27	
В	REDRA	WN D4093-1/-	3 (ZN B4-1, B4-2)	RF	11.01.31
Α	NEW ISSUE			RF	10.09.16
REV.	DESCRIPTION			BY	DATE
DESIG	N	RF	DART AEROSPACE USA, INC.		. INC.
DRAW	N	RF	KENT, WA		
CHECK	ED	85	DRAWING NO.		REV. D
MFG. APPR.		J. J. J.	D4093		SHEET 1 OF 5
APPRO	VED	di	TITLE		SCALE
DE APPR. BI			BRACKET		
DATE 12.09.18		9.18	COPYRIGHT © 2010 BY DA THIS DOCUMENT IS PRIVATE AND CONFEDENTIAL AND IS NOT TO BE USED FOR ANY PURPOSE OR COPED OR	SUPPLED ON THE EXPRE	SS CONDITION THAT IT IS

104247



Ø0.201 C'SINK  $\phi$ 0.370 x 100° CHAMFER — 0.75**~** 

D4093-1 BRACKET

DESIGN	RF	DART AEROSPACE USA, INC.		
DRAWN	RF	KENT, WA		
CHECKED	15	DRAWING NO.	REV. D	
MFG. APPR.	J.	D4093	SHEET 2 OF 5	
APPROVED	di	TITLE	SCALE	
DE APPR.	4	BRACKET	NTS	
DATE 12.00.18		COPYRIGHT © 2010 BY DART AEROSPACE USA, INC. THIS COCUMENT IS PROVITE AND CONTINUENT AND IS SUPPLIED ON THE CUPAESS CONDITION THAT IT IS		

8